APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/457,208	12/07/1999	MARUTHI BHASKAR	CISCP127	7417

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EXAMINER
SHAH, CHIRAG G

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/457,208	BHASKAR, MARUTHI
	Examiner	Art Unit	
	Chirag G Shah	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _5/5/03_ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-28_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _24-26_ is/are allowed.

6)☒ Claim(s) _1-23, 27 and 28_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

  If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____ .

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

  a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1, 2-6, 11-16, and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over

Ruszczyk (U.S. Patent No. 6,205,150) in view of Blake et al. (RFC 2475).

Referring to claims 1, 2, 11, 12, 21, Ruszczyk discloses a method of scheduling higher

and lower priority data packets. Ruszczyk discloses in figure 4 and respective portions of the

specification of receiving a plurality of packets into a selected ingress router, each packet

belongs to (either a high priority queue or low priority queue) a selected one of a plurality of

service classes and the packets being transmitted to a particular destination. Ruszczyk further

teaches in column to lines 10-60 and figure 4 and respective portions of the specification that

data packets at various data rates or bandwidth class of service are sent from any or all of CPE.

The routers place data packets into combination queues. Once the sorter places data packets in a

higher priority or lower priority queue, the router schedules the data packets to be transmitted for

execution. Ruszczyk further discloses in figure 3 that the router periodically monitors a

combination queue for the presence of data packets for transmission. However, Ruszczyk fails

to explicitly disclose of metering a load value for each service class and the particular destination

of at least one of the packets and periodically transmitting one or more tickets to the destination

to indicate the load value for each of the one or more service class. Blake discloses on pages 14-15 of an architecture for differentiated service Blake further discloses on pages 17 and 18 that the destination is selected one of the egress node/router as claim. Blake further discloses on page 15 and figure 1 and respective portions of the specification of a traffic meter that measures the properties of the stream of packets, implying metering the load value for each service class and the particular destination of at lease one of the packets. Blake further discloses on page 10 of applying an integrated service/RSVP model that allows sources and receivers to exchange signaling messages, which establish additional packet between them. RSVP protocol works to reserve certain service features of the network and signal that a number of packets will follow this same path. It serves to forward functionality like priority to ensure the required class of service. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Ruszczyk to include the teachings of Blake to ensure that metering and reserving of signaling message for each priority class enhances the scheduling and allocating of resources with respect to priority more reliably and efficiently.

Referring to claims 3-6 and 13-16, Ruszczyk discloses a method of scheduling higher and lower priority data packets. Ruszczyk discloses in figure 4 and respective portions of the specification of receiving a plurality of packets into a selected ingress router, each packet belongs to (either a high priority queue or low priority queue) a selected one of a plurality of service classes and the packets being transmitted to a particular destination. Ruszczyk further teaches in column to lines 10-60 and figure 4 and respective portions of the specification that data packets at various data rates or bandwidth class of service are sent from any or all of CPE. The routers place data packets into combination queues. Once the sorter places data packets in a

higher priority or lower priority queue, the router schedules the data packets to be transmitted for

execution. Ruszczyk further discloses in figure 3 that the router periodically monitors a

combination queue for the presence of data packets for transmission. Ruszczyk fails to disclose

of one or more tickets (or each ticket) indicate a total number of streams (or a single stream) for

each class (or particular class) that is being transmitted to the destination (same). Blake discloses

on page 10 of applying an integrated service/RSVP model that allows sources and receivers to

exchange signaling messages, which establish additional packet between them. RSVP protocol

works to reserve certain service features of the network and signal that a number of packets will

follow this same path. It serves to forward functionality like priority to ensure the required class

of service. This ensures that number of streams (packets) with respect to class based priority is

reserved and transmitted to a same destination, thus implying, number of packets will follow the

reserved path. Therefore, it would have been obvious to one of ordinary skill in the art to modify

the teachings of Ruszczyk to include the teachings of Blake to ensure reserving of signaling

message for each priority class enhances the transmitting of streams to destination with respect to

priority more reliably and efficiently.

3.   Claims 7-10 and 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over

Ruszczyk in view of Blake as applied to claims 1, 2-6, 11-16, and 21 above, and further in view

of Yin (U.S. Patent No. 6,442,138).

        Referring to claims 7-10, and 17-20, Ruszczyk in view of Blake disclose of sending one

or more tickets to a router reserving certain service features of the network and signal that a

number of packets will follow this same path. Ruszczyk in view of Blake fails to disclose that

the selected core router is configured to allow the selected core router to dynamically allocate

resource based on the current load of each class. Yin teaches of a system that determines the

allocated bandwidth for the specified class of service. Yin discloses in figure 1, column 3, lines

65 to column 2, lines 13 of providing dynamic allocation of bandwidth resources, adapting to

changing network configurations and changing network traffic. As the bandwidth allocation is

modified or updated by the CAC, a corresponding signal is provided to queue scheduler to adjust

the manner in which queue are serviced by queue selector. Thus, implying one or more tickets

are only transmitted (after a elapsed, predetermined time) for a particular class when the load

value has changed for such service class. In addition to what Yin discloses in figure 1, column 3,

lines 65 to column 2, lines 13, Yin further discloses in column 6 lines 1 to column 7 lines 61 that

the node or router is configured to allow the node to dynamically allocate resources based on the

current load of each class and the tickets facilitate assured forward routing service performed by

the core router. Therefore, it would have been obvious to one of ordinary skill in the art to

modify the teachings of Ruszczyk in view of Blake to include the teachings of Yin in order to

ensure maximum utilization of the available bandwidth.

4.   Claims 22, 23, 27, and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over

Ruszczyk in view of Blake, and further in view of Yin (U.S. Patent No. 6,442,138).

Ruszczyk discloses a method of scheduling higher and lower priority data packets.

Ruszczyk discloses in figure 4 and respective portions of the specification of receiving a plurality

of packets into a selected ingress router, each packet belongs to (either a high priority queue or

low priority queue) a selected one of a plurality of service classes and the packets being

transmitted to a particular destination. Ruszczyk further teaches in column to lines 10-60 and

figure 4 and respective portions of the specification that data packets at various data rates or

bandwidth class of service are sent from any or all of CPE. The routers place data packets into

combination queues. Once the sorter places data packets in a higher priority or lower priority

queue, the router schedules the data packets to be transmitted for execution. Ruszczyk further

discloses in figure 3 that the router periodically monitors a combination queue for the presence

of data packets for transmission. However, Ruszczyk fails to explicitly disclose of metering a

load value for each service class and the particular destination of at least one of the packets and

periodically transmitting one or more tickets to the destination to indicate the load value for each

of the one or more service class. Blake discloses on pages 14-15 of an architecture for

differentiated service Blake further discloses on pages 17 and 18 that the destination is selected

one of the egress node/router as claim. Blake further discloses on page 15 and figure 1 and

respective portions of the specification of a traffic meter that measures the properties of the

stream of packets, implying metering the load value for each service class and the particular

destination of at lease one of the packets. Blake further discloses on page 10 of applying an

integrated service/RSVP model that allows sources and receivers to exchange signaling

messages, which establish additional packet between them. RSVP protocol works to reserve

certain service features of the network and signal that a number of packets will follow this same

path. It serves to forward functionality like priority to ensure the required class of service.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings

of Ruszczyk to include the teachings of Blake to ensure that metering and reserving of signaling

message for each priority class enhances the scheduling and allocating of resources with respect

to priority more reliably and efficiently. Ruszczyk in view of Blake disclose of sending one or

more tickets to a router reserving certain service features of the network and signal that a number

of packets will follow this same path. Ruszczyk in view of Blake fails to disclose that the

selected core router is configured to allow the selected core router to dynamically allocate

resource based on the current load of each class. Yin teaches of a system that determines the

allocated bandwidth for the specified class of service. Yin discloses in figure 1, column 3, lines

65 to column 2, lines 13 of providing dynamic allocation of bandwidth resources, adapting to

changing network configurations and changing network traffic. As the bandwidth allocation is

modified or updated by the CAC, a corresponding signal is provided to queue scheduler to adjust

the manner in which queue are serviced by queue selector. Thus, implying one or more tickets

are only transmitted (after a elapsed, predetermined time) for a particular class when the load

value has changed for such service class. In addition to what Yin discloses in figure 1, column 3,

lines 65 to column 2, lines 13, Yin further discloses in column 6 lines 1 to column 7 lines 61 that

the node or router is configured to allow the node to dynamically allocate resources based on the

current load of each class and the tickets facilitate assured forward routing service performed by

the core router. Therefore, it would have been obvious to one of ordinary skill in the art to

modify the teaching of Ruszczyk in view of Blake to include the teachings of Yin in order to

ensure maximum utilization of the available bandwidth.

Allowable Subject Matter

5.   Claims 24-26 allowed.

Response to Arguments

6.　　Applicant's arguments with respect to claims 1-28 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

Any response to this action should be mailed to:

>Commissioner of Patents and Trademarks
>Washington, D.C. 20231

Or faxed to:

>(703)305-3988, (for formal communications intended for entry)

Or:

>(703)305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal
Drive, Arlington, VA., Sixth Floor (Receptionist).
Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The

examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9314 for regular

communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

cgs
July 11, 2003

Ajit Patel
Primary Examiner